IN THE CLAIMS:

This version of the claims replaces and supercedes all prior versions of the claims.

1. (Currently Amended) An inventory management apparatus for an automated assembly machine that is fed components from a component reel, the component reel comprising a tape having the components carried at periodic locations along the tape, the apparatus comprising:

a reader for reading the tape, as the tape is fed to the automated assembly machine, to detect at least one indication on the tape the at least one indication is positioned at a location along the tape at which a predetermined portion of the component reel has been depleted, the predetermined portion indicating a percentage use of the component reel; and

a transmitter responsive to the reader for transmitting a signal when the at least one indication is detected by the reader.

2. (Original) The inventory management apparatus of claim 1, further comprising:

a receiver for receiving the signal transmitted by the transmitter; and

a computer responsive to the receiver for sending a message via a computer network that comprises a notification to supply the automated assembly machine with an additional component reel.

3. (Original) The inventory management apparatus of claim 2, wherein:

the message comprises an e-mail that is addressed to a computer at a supply facility.

4. (Original) The inventory management apparatus of claim 2, wherein:

the message comprises an identifier of a type of the component reel.

5. (Original) The inventory management apparatus of claim 4, wherein:
the signal comprises an identifier associated with the transmitter; and
the computer determines the identifier of the type of the component reel based on the identifier associated with the transmitter.

6. (Original) The inventory management apparatus of claim 2, wherein:
the message comprises an identifier of the automated assembly machine.

7. (Original) The inventory management apparatus of claim 6, wherein:
the signal comprises an identifier associated with the transmitter; and
the computer determines the identifier of the automated assembly machine based on the identifier associated with the transmitter.

8. (Original) The inventory management apparatus of claim 1, further comprising:
a receiver for receiving the signal transmitted by the transmitter; and
a computer responsive to the receiver for displaying a notification to a user to supply the automated assembly machine with an additional component reel.

9. (Original) The inventory management apparatus of claim 8, wherein:
the message comprises an identifier of a type of the component reel.

10. (Original) The inventory management apparatus of claim 9, wherein:

the signal comprises an identifier associated with the transmitter; and

the computer determines the identifier of the type of the component reel based on the identifier associated with the transmitter.

11. (Original) The inventory management apparatus of claim 8, wherein:

the message comprises an identifier of the automated assembly machine.

12. (Original) The inventory management apparatus of claim 11, wherein:

the signal comprises an identifier associated with the transmitter; and

the computer determines the identifier of the automated assembly machine based on the identifier associated with the transmitter.

13. (Original) The inventory management apparatus of claim 1, wherein:

the automated assembly machine comprises a surface mount technology pick and place machine

14. (Original) The inventory management apparatus of claim 1, wherein:

the reader comprises an optical reader.

15. (Original) The inventory management apparatus of claim 1, wherein:

the reader comprises a magnetic reader.

16. (Original) The inventory management apparatus of claim 1, wherein:

the reader comprises an RF tag reader.

17. Cancelled.

18. (Original) The inventory management apparatus of claim 1, wherein:

the transmitter transmits the signal as a wireless signal.

19. (Currently Amended) An inventory management method for an automated assembly machine which is fed components from a component reel, the component reel comprising a tape having the components carried at periodic locations along the tape, the method comprising:

reading the tape, as the tape is fed to the automated assembly machine, to detect at least one indication on the tape, the at least one indication is positioned at a location along the tape at which a predetermined portion of the component reel has been depleted, the predetermined portion indicating a percentage use of the component reel; and

transmitting a signal when the at least one indication is detected by the reader.

20. (Withdrawn) A component reel for an automated assembly machine, comprising:

a tape having components carried at periodic locations along the tape;

at least one indication at a location on the tape at which a predetermined portion of the component reel has been depleted;

wherein the at least one indication is adapted to be detected by a reader as the tape is fed to the automated assembly machine.

21. (Withdrawn) The component reel of claim 20, wherein:

the at least one indication is optically-readable.

22. (Withdrawn) The component reel of claim 20, wherein:

the at least one indication is magnetically-readable.

23. (Withdrawn) The component reel of claim 20, wherein:

the at least one indication comprises an RF tag.

24. (Withdrawn) The component reel of claim 20, wherein:

the components comprise components for a printed circuit board.

25. (Withdrawn) The component reel of claim 20, wherein:

the at least one indication encodes an identifier of a type of the component reel.

26. (Original) An inventory management apparatus for an automated assembly machine that is fed components from a component reel, the component reel comprising a tape having the components carried at periodic locations along the tape, the apparatus comprising:

first and second pinch rollers through which the tape travels as the tape is fed to the automated assembly machine;

an electrical circuit in which the first and second pinch rollers are arranged; wherein:

travel of the tape through the first and second pinch rollers prevents the first and second pinch rollers from contacting one another and closing the electrical circuit; and

when the tape no longer travels through the first and second pinch rollers, indicating that the component reel has been depleted, the first and second pinch rollers contact one another, thereby closing the electrical circuit; and

a transmitter responsive to the electrical circuit for transmitting a signal when the electrical circuit is closed.

27. (Original) An inventory management method for an automated assembly machine that is fed components from a component reel, the component reel comprising a tape having the components carried at periodic locations along the tape, the method comprising:

arranging, in an electrical circuit, first and second pinch rollers through which the tape travels as the tape is fed to the automated assembly machine; wherein:

travel of the tape through the first and second pinch rollers prevents the first and second pinch rollers from contacting one another and closing the electrical circuit; and

when the tape no longer travels through the first and second pinch rollers, indicating that the component reel has been depleted, the first and second pinch rollers contact one another, thereby closing the electrical circuit;

detecting when the electrical circuit is closed; and

transmitting a signal, responsive to the detecting, when the electrical circuit is closed.